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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
TSEGAYE, SABA	
ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/728,430	GARAKANI ET AL.	
	Examiner	Art Unit	
	Saba Tsegaye	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 May 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to the amendment filed on 05/04/05. Claims 1-20 are pending. Currently no claims are in condition for allowance.

Claim Rejections - 35 USC § 102

2. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Nicol (US 6,882,711).

Referring to claims 1 and 14, Nicol discloses a two-pass method for achieving maximal data compression for a voice frame modem relay channel (telephony over the Internet) within a voice frame network between two endpoint modems (see fig. 1; 13), wherein each modem is operatively coupled with an associated gateway (12a-c) thereby defining an endpoint segment including an endpoint modem and its associated gateway (see Fig. 1), the method comprising: detecting that each modem is a high-speed modem (column 32, lines 54-67); first negotiating maximal data compression parameters for either of the two endpoint segments of the modem relay channel, (col. 33, lines 11-21; column 35, lines 50-59) wherein physical layers of the modems are terminated at the associated gateways and any voice compression is disabled such that negotiations at one endpoint are independent of the negotiations at the other endpoint (col. 33, lines 22-25); communicating such maximal data compression parameters for at least one of the two endpoint segments to the other of the two endpoint segment (col. 35, lines 50-59); and second negotiating maximal end-to-end data compression parameters between the associated gateways (col. 35, lines 50-59) for the modem relay channel based upon the first negotiated

maximal data compression parameters for the two endpoint segments (col. 33, lines 11-21; column 35, lines 50-59).

Referring to claims 2 and 15, Nicol discloses the method of claims 1 and 14, which further comprise; transitioning the channel from a voice mode into a modem relay mode of operation (transition the signal from a standard telephony signal, into a digitized signal to be transmitted by a modem over a data network, col. 6, Lines 20-23).

Referring to claims 3 and 16, Nicol discloses the method of parent claims 2 and 15, wherein said transitioning includes, terminating an end-to-end physical layer between the two modems and third negotiating at either segment a local physical layer between the two modems and their associated gateways (col. 33, lines 11-28).

Referring to claim 4, Nicol discloses the method of claim 3, wherein said third negotiating at one of the endpoint segments of a corresponding physical layer is delayed until said communicating is completed (col. 33, lines 11-21; column 35, lines 50-59).

Referring to claim 5, Nicol discloses the method of claim 4, wherein said third negotiating is delayed by a refusal of the endpoint segment receiving the communicated maximal compression parameters to respond to commands from the endpoint segment performing said communicating (col. 33, lines 11-21; column 35, lines 50-59).

Referring to claims 6 and 17, Nicol discloses the method of parent claims 1 and 16 which further comprises inherently storing the end-to-end data compression parameters (signaling message) for the modem relay channel (entire connection) in a memory as an end-to-end negotiation posture such that renegotiation by either end has no effect (column 35, lines 50-59).

Referring to claims 7 and 18, Nicol discloses a method of maximizing data compression between two modems in a voice frame network wherein each of the two modems is operatively coupled with an associated gateway defining a segment (Figs. 1 and 5, column 35, lines 50-59), the method comprising: detecting that each of the two modems are high-speed modems (column 32, lines 54-67); first negotiating at a first segment the maximum modem data compression to determine the maximum data compression capability of the first segment and communicating the determined capability from the first segment to a second segment (column 35, lines 50-59): second negotiating at the second segment the maximum modem data compression to determine the maximum data compression capability of the second segment independent of the first negotiating at the first segment to a second segment (column 35, lines 50-59); determining the maximum end-to-end modem data compression capability of a modem relay channel between the two modems, wherein the modem relay channel further comprises a data pathway between the two modems such that modem tones are packetized and transmitted over the network as data (col. 33, lines 11-21; column 35, lines 50-59); renegotiating at the first segment the determined maximum end-to-end modem data compression capability of the channel with respect to the first segment (col. 33, lines 11-21; column 35, lines 50-59).

Referring to claims 8 and 19, Nicol discloses the method of parent claims 7 and 18 which further comprises: terminating an end-to-end physical layer between the two modems (determine the capabilities between devices); and negotiating at either segment a local physical layer between the two modems and their associated gateways, thereby transitioning the channel into a modem relay mode of operation (col. 33, lines 11-21; column 35, lines 50-59).

Referring to claims 9 and 20, Nicol discloses the method of parent claims 7 and 19 which, after said renegotiating, further comprises: inherently storing in a memory an end-to-end coding scheme (negotiation posture) from the signaling message of the two modems representative of the maximum end-to-end data compression capability of the channel (column 35, lines 50-59).

Referring to claim 10, Nicol discloses an apparatus for maximizing data compression between two endpoint modems (see figs. 1 and 5) in a voice frame network (IP network) defining a channel there between, wherein each of the two modems is operatively coupled with an associated gateway (12a-c), with each modem and its associated gateway defining a segment, the apparatus comprising: detecting that a calling modem is a high-speed modem (col. 32, lines 54-67); a dual first-pass negotiation mechanism for determining the maximal data compression capability of each segment independent of the other segment (col. 33, lines 11-21; column 35, lines 50-59); an end-to-end data compression capability determination mechanism for determining the maximal end-to-end data compression capability based at least in pad upon the independently determined maximal data compression capability of each segment, and for

disabling any voice compression (column 35, lines 50-59); and a second-pass negotiation mechanism for establishing the determined maximal end-to-end data compression capability for the channel (column 35, lines 50-59).

Referring to claim 11, Nicol discloses the apparatus of claim 10 which further inherently comprises: an end-to-end coding scheme (negotiation posture) storage mechanism for storing in a memory the determined maximal end-to-end data compression capability for the channel such that any renegotiation has no effect based on the signaling message (column 35, lines 50-59).

Referring to claim 12, Nicol discloses the apparatus of claim 10, which further comprises: a modem relay connector for transitioning the channel to a modem relay mode of operation (transition the signal from a standard telephony signal, into a digitized signal to be transmitted by a modem over a data network, col. 6, lines 20-23).

Referring to claim 13, Nicol discloses the apparatus of claim 12, wherein said modem relay connector includes a local proxy negotiation mechanism (Gateway) for terminating an end-to-end physical layer (signaling message indicating the capabilities in the system) between the two modems and for negotiating at either segment a local physical layer between the two modems and their associated gateways (col. 33, lines 11-21; column 35, lines 50-59).

3. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Fayad et al. (US 6,757,250) hereafter Fayad.

Referring to claims 1 and 14, Fayad discloses a two-pass method for achieving maximal data compression for a voice frame modem relay channel (VoIP) within a voice frame network between two endpoint modems (see fig. 3; 302, 304), wherein each modem is operatively coupled with an associated gateway (306, 308) thereby defining an endpoint segment including an endpoint modem and its associated gateway (see Fig. 3; column 4, lines 30-34), the method comprising: detecting that each modem is a high-speed modem (column 5, lines 31-56); first negotiating maximal data compression parameters for either of the two endpoint segments of the modem relay channel, (col. 6, lines 44-51) wherein physical layers of the modems are terminated at the associated gateways and any voice compression is disabled such that negotiations at one endpoint are independent of the negotiations at the other endpoint (col. 6, line 52-col. 7, line 3; col. 7, line 55-col. 8, line 6); communicating such maximal data compression parameters for at least one of the two endpoint segments to the other of the two endpoint segment (col. 8, lines 54-67); and second negotiating maximal end-to-end data compression parameters between the associated gateways (col. 9, lines 47-50) for the modem relay channel based upon the first negotiated maximal data compression parameters for the two endpoint segments (col. 8, line 54-col. 9, line 50; see fig. 6).

Referring to claims 2 and 15, Fayad discloses the method of claims 1 and 14, which further comprise; transitioning the channel from a voice mode into a modem relay mode of operation (transition the signal from a standard telephony signal, into a digitized signal to be transmitted by a modem over a data network, col. 4, lines 31-34).

Referring to claims 3 and 16, Fayad discloses the method of parent claims 2 and 15, wherein said transitioning includes, terminating an end-to-end physical layer between the two modems and third negotiating at either segment a local physical layer between the two modems and their associated gateways (col. 6, lines 52-65).

Referring to claim 4, Fayad discloses the method of claim 3, wherein said third negotiating at one of the endpoint segments of a corresponding physical layer is delayed until said communicating is completed (col. 11, lines 46-51).

Referring to claim 5, Fayad discloses the method of claim 4, wherein said third negotiating is delayed by a refusal of the endpoint segment receiving the communicated maximal compression parameters to respond to commands from the endpoint segment performing said communicating (col. 8, line 54-col. 9, line 2).

Referring to claims 6 and 17, Fayad discloses the method of parent claims 1 and 16 which further comprises inherently storing the end-to-end data compression parameters (signaling message) for the modem relay channel (entire connection) in a memory as an end-to-end negotiation posture such that renegotiation by either end has no effect (column 11, lines 31-63).

Referring to claims 7 and 18, Fayad discloses a method of maximizing data compression between two modems in a voice frame network wherein each of the two modems is operatively coupled with an associated gateway defining a segment (see Figs. 3), the method comprising:

detecting that each of the two modems are high-speed modems (column 5, lines 31-40); first negotiating at a first segment the maximum modem data compression to determine the maximum data compression capability of the first segment and communicating the determined capability from the first segment to a second segment; second negotiating at the second segment the maximum modem data compression to determine the maximum data compression capability of the second segment independent of the first negotiating at the first segment to a second segment; determining the maximum end-to-end modem data compression capability of a modem relay channel between the two modems, wherein the modem relay channel further comprises a data pathway between the two modems such that modem tones are packetized and transmitted over the network as data (column 6, line 52-column 7, line 20; column 7, line 57-column 9, line50); renegotiating at the first segment the determined maximum end-to-end modem data compression capability of the channel with respect to the first segment (col. 8, line 54-col. 9, line 2).

Referring to claims 8 and 19, Fayad discloses the method of parent claims 7 and 18 which further comprises: terminating an end-to-end physical layer between the two modems (determine the capabilities between devices); and negotiating at either segment a local physical layer between the two modems and their associated gateways, thereby transitioning the channel into a modem relay mode of operation (col. 8, line 54-col. 9 line 50).

Referring to claims 9 and 20, Fayad discloses the method of parent claims 7 and 19 which, after said renegotiating, further comprises: inherently storing in a memory an end-to-end coding scheme (negotiation posture) from the signaling message of the two modems

representative of the maximum end-to-end data compression capability of the channel (column 11, lines 31-63).

Referring to claim 10, Fayad discloses an apparatus for maximizing data compression between two endpoint modems (see fig. 3) in a voice frame network (VoIP network) defining a channel there between, wherein each of the two modems (302, 304) is operatively coupled with an associated gateway (306, 308), with each modem and its associated gateway defining a segment, the apparatus comprising: detecting that a calling modem is a high-speed modem (column 5, lines 31-56); a dual first-pass negotiation mechanism for determining the maximal data compression capability of each segment independent of the other segment (col. 8, lines 2-6); an end-to-end data compression capability determination mechanism for determining the maximal end-to-end data compression capability based at least in pad upon the independently determined maximal data compression capability of each segment, and for disabling any voice compression (col. 6, line 52-col. 7, line 3; col. 7, line 55-col. 8, line 6); and a second-pass negotiation mechanism for establishing the determined maximal end-to-end data compression capability for the channel (column 9, lines 47-50; see fig. 6).

Referring to claim 11, Fayad discloses the apparatus of claim 10 which further inherently comprises: an end-to-end coding scheme (negotiation posture) storage mechanism for storing in a memory the determined maximal end-to-end data compression capability for the channel such that any renegotiation has no effect based on the signaling message (column 11, lines 31-63).

Referring to claim 12, Fayad discloses the apparatus of claim 10, which further comprises: a modem relay connector for transitioning the channel to a modem relay mode of operation (transition the signal from a standard telephony signal, into a digitized signal to be transmitted by a modem over a data network, col. 4, lines 30-34).

Referring to claim 13, Fayad discloses the apparatus of claim 12, wherein said modem relay connector includes a local proxy negotiation mechanism (Gateway) for terminating an end-to-end physical layer (signaling message indicating the capabilities in the system) between the two modems and for negotiating at either segment a local physical layer between the two modems and their associated gateways (col. 4, lines 35-52).

Response to Arguments

4. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saba Tsegaye whose telephone number is (571) 272-3091. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ST
August 19, 2005

JOHN PEZZLO
PRIMARY EXAMINER